

Montana Height Modernization Strategic Plan Meeting Report

January 17, 2007 9:00 AM to 12:10 PM at Montana Department of Transportation (MDT) headquarters, Helena, Montana. Phone-out conferencing was available and used by several of the members.

Participants

____ Tony Bachman, USFS
____ Dave Davis, MDT
____ Todd Ferris, Inland GPS
____ Joe Glassy, Lupine Logic, Inc.
____ Stu Kirkpatrick, DOA
____ Bryce Larsen, MDT
____ Steve Niday, Missoula County
____ Gerald Pavlick, Morrison Maierle, Inc.
____ Ron Schlagenhauser, Flathead County GIS
____ Curt Smith, NGS
____ Dick Smith, Smith Surveying
____ Greg Thurston, City of Kalispell
____ R.J. Zimmer, DJ&A

General Agenda

1. Committee Updates
 - A. Montana Height Modernization Program Plan – Draft
 - B. Montana Height Modernization Pilot Project – Proposal
 - C. Montana Height Modernization Marketing Plan – Draft
 - D. MDT Height Modernization Web Site
 - E. Mark Recovery Program
2. Upcoming Events and Target Dates
3. Next Meeting

Reports

Draft Plans: A general progress review of the draft plans and projects revealed we've made very good headway to this point and we feel comfortable to proceed with the next steps toward realizing a Montana Height Modernization Program (MT-HMP).

Direction and Guidance from MDT: Stu Kirkpatrick led a discussion indicating the need for the Director of MDT to provide guidance for our next steps in the pursuit of Height Modernization for Montana. In taking the lead for MT-HMP the MDT should direct how we proceed and what steps should be taken. It was suggested a letter indicating support for MT-HMP from the MDT could be delivered to the Governor. The Arizona HMP was successful in part due to the support of the Governor's office. Bryce Larsen and Dave Davis would talk with MDT Director, Jim Lynch, to advise and update our current efforts and enlist his guidance to direct our efforts.

Letters of Support: Stu Kirkpatrick developed a draft Letter of Support and with edits supplied by R.J. Zimmer a very good working “boiler plate” Letter of Support was accepted by the Executive Committee. This boiler plate letter can be used by agencies/firms/groups to produce their own Letters of Support. The following groups can be targeted to supply Letters of Support: Montana Association of Registered Land Surveyors (MARLS), Dick Smith will look into this. Montana Association of Counties (MACO), Stu Kirkpatrick will look into this. Consulting Engineers Council, Gerald Pavlick will look into this. Montana Land Information Council (MLIC), Stu Kirkpatrick will look into this.

Executive Summary: It was determined a one page Executive Summary of the MT-HMP Plan be developed. This would provide just enough verbiage to briefly summarize the important aspects of Height Modernization and describe what we are asking for. R.J. Zimmer said he would work on this with some assistance from Stu Kirkpatrick and provide it by the end of January.

1. Committee Updates

A. Montana Height Modernization Program Plan – Draft (R.J. Zimmer reporting)

R.J. Zimmer combined edits garnered from e-mail responses to the Draft Montana Height Modernization Program Plan which, in its infancy, is looking pretty good.

The question of adding/incorporating more pictures throughout the document was addressed. The consensus was that pictures were not necessary to promote initial support for the program at this time and pictures can always be added as the document develops. Any pictures should be specific to Montana and include a caption to clarify location and date.

A sense of improved three-dimensionality should be incorporated throughout the document. Even though elevation is the underlying train of thought behind height modernization, the benefits of an improved height system greatly improve the horizontal aspect as well.

We decided through discussion to increase the first year’s request for money to \$950,000 and subsequent years the same percentage (about 14.5%). It was discussed that dollar amounts should be identified for each element in request/plan. We should also develop an internal, low end budget list which will help planning if total requested funds are not granted.

Part of the increase is due to the realization the CORS passive network, which is pretty much what’s been targeted in Y1.c of the MT-HMP Plan, does not begin to cover the cost of creating a Real Time Network (RTN) with CORS. Todd Ferris mentioned the Washington Spatial Reference Network will not be able to manage the large number of CORS which would be created in our densified CORS network. The price of adding RTN software and hardware need to be addressed. Todd mentioned he could help with these plans and costs

Curt Smith will work with Renee Shields, NGS Height Modernization Coordinator, to ensure our plan works within the NGS design and will share copies of all our updated plans.

B. Montana Height Modernization Pilot Project – Proposal (Steve Niday reporting)

Steve Niday performed the RTK observations over the same control points at the Milltown Reservoir Sediments/Clark Fork River Superfund Site as those surveyed with conventional, static GPS observations to determine potential time/cost savings using the Height Modernization methodology. Steve then created a very good document with clear graphs illustrating the benefits of supporting Height Modernization.

Tony Bachman pointed out the current draft language did not really sell height modernization as RTK surveying is available today without the benefit of a height modernization program. Specific language addressing this will be incorporated in the next draft. Dave Davis pointed out some confusing wording relating to “traditional non-GPS surveying” which will also be clarified in the next draft.

C. Montana Height Modernization Marketing Plan – Draft (Dick Smith reporting)

The Marketing Plan is in a hold pattern until further direction can be identified. There is not much guidance available to help with developing a Marketing Plan for Montana. General strategy is based on short and long term needs. Short term plans will be designed to support the direction indicated from MDT leadership and getting the Letters of Support moving. Long term marketing will include the creation of educational packages to promote a standardized message about the MT-HMP.

The Letters of Support can serve as a boiler plate for those agencies wishing to garner support for the MT-HMP. We do not have to get Letters of Support from every County or City. It would be good to have Letters from the group such as MACO or MARLS.

A list of target agencies for requesting support should be identified.

The question arose as to whether we should promote MT-HMP prior to requesting Letters of Support. Letters of Support can be written anytime and are not required from every agency. As the program progresses it will become much more necessary to promote the MT-HMP, through workshops and other education sources, especially when Federal funds become scarce or are unavailable in the future. At this point the state would need to continue the program through other funding sources.

D. MDT Montana Height Modernization Web Site (Dave Davis reporting)

The MDT Web site for Height Modernization, <http://www.mdt.mt.gov/mdt/heightmod.shtml>, is now listed on the MDT Home page. Updated plans, as well as meeting minutes will be posted.

Dave Davis will look into having the MT-HMP link on the MDT Web site easier to locate on their Home page (already done).

E. Mark Recovery Program

R.J Zimmer has created and posted two types of files, on the MDT Height Modernization Web site noted above, that can be used in Google Earth - a KML file and a GPX file. The KML file is a Keyhole Markup Language file (<http://earth.google.com/kml/>) that displays symbols and has

attributes for features. GPX is a format that works in Google Earth, but which does not contain as rich an information packet. The GPX files however can be uploaded into GPS devices to serve as a navigation aide to finding points in the field. He has also provided shapefiles which can be used in ArcGIS and other software that support shapefiles. These files are to support the mark recovery program to find and report the condition of pre-existing NGS points for the entire state of Montana and are grouped by MARLS Chapter coverage for organizational purposes.

Updated recoveries can be submitted to the NGS at
http://www.ngs.noaa.gov/FORMS_PROCESSING-cgi-bin/recvy_entry_www.prl.

Two Internet sites provide services for finding bench marks as noted by Steve Niday. The use of handheld GPS units to find “treasure” provided a natural fit by the Geocachers to also search for control monuments. The following links are provided for further information.
<http://www.geocaching.com/> “Find a Benchmark” and <http://www.terrachaching.com>. Steve also mentioned he would provide an introduction to MT-HMP and the mark recovery effort to the MARLS Western Chapter at their upcoming monthly meeting.

This phase of the MT-HMP can begin today as marks can be recovered and updated on the NGS Web site. We still need to address this in a more coordinated effort to minimize duplication.

2. Upcoming Events and Target Dates

The next “editions” of MT-HMP Plan, Pilot Project, and Executive Summary will be edited and posted via e-mail for review and comments over the next couple of weeks preferably by the end of January. Document leads are:

Executive Summary, R.J. Zimmer and Stu Kirkpatrick
MT-HMP Plan, R.J. Zimmer
Pilot Project, Steve Niday

Dick Smith will address MARLS Board of Directors meeting about proposed mark recovery by MARLS Chapters and provide update on MT-HMP at the MARLS Surveyors Conference in Billings, February 28th through March 3rd.

Curt Smith will present Precision Digital Leveling seminar with emphasis on the MT-HMP at the MARLS Surveyors Conference on March 2nd.

Stu Kirkpatrick will be attending a Congressional GIS Strategy meeting in Washington, D.C. in March and may take the opportunity to approach U.S. Legislators about MT-HMP.

Curt Smith will present Montana Height Modernization Program at the Montana Association of Floodplain Managers Conference in Bozeman, April 2nd through 5th.

Still Pending: Create an informational meeting about Real Time Networks that could be developed in Montana. Enlist the help and direction from Gavin Schrock, who manages the Washington Spatial Reference Network by inviting him to speak somewhere in the state. Todd Ferris will contact Gavin and help develop this meeting.

“Final” Executive Summaries are due February 1, 2007.

3. Next Meeting

The next meeting of the Montana Height Modernization Executive Committee was not scheduled but will be called for when direction from MDT is determined and as documents and plans are finalized. E-mail communication will continue to prepare documents and plans.

Respectfully submitted,

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